

WHAT IS CLAIMED IS:

1. An interface converter connected to a device having an interface, the interface converter comprising:
5 a first command converter for converting a command between one complying with a first interface standard and one complying with a second interface standard;
 a second command converter for converting a command between one complying with the first interface standard and
10 one complying with a third interface standard; and
 a switching controller for checking whether the interface of the device complies with the second interface or the third interface and selects the first command converter or the second command converter in accordance with
15 the checking result.

2. The interface converter according to claim 1, wherein the switching controller issues a command to the device and checks whether the interface of the device complies with the second interface or the third interface based on status information generated by the device in response to the command.
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3. The interface converter according to claim 1,
25 wherein the interface converter is connectable to another device having an interface complying with the first interface standard, at least one of the first and second command converters includes a determination circuit for determining whether to convert a command complying with the first interface standard to a command complying with the second interface standard or the third interface standard, the at least one of the first and second command converters generating an error status signal when not converting the
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command, and the interface converter providing the error status signal to said another device.

4. The interface converter according to claim 1,
5 wherein at least one of the first and second command converters uses a table storing commands associated with the first, second, and third interface standards to convert a command.

10 5. The interface converter according to claim 1,
further comprising:

a first status converter for converting a status between one complying with the first interface standard and one complying with the second interface; and

15 a second status converter for converting a status between one complying with the first interface standard and one complying with the third interface standard, and wherein the switching controller selects the first status converter or the second status converter in accordance with the
20 checking result.

6. The interface converter according to claim 1,
further comprising;

25 a first data converter for converting a datum between one complying with the first interface standard and one complying with the second interface standard; and

a second data converter for converting a datum between one complying with the first interface standard and one complying with the third interface standard, and wherein the
30 switching controller selects the first data converter or the second data converter in accordance with the checking result.

7. The interface converter according to claim 6,
wherein at least one of the first and second data converters
encodes or decodes input data to convert data.

5 8. The interface converter according to claim 6,
wherein at least one of the first and second data converters
generates converted data to which an error correction code
is added.

10 9. The interface converter according to claim 6,
wherein at least one of the first and second data converters
determines whether input data includes a predetermined data
pattern and stops outputting the input data when the
predetermined data pattern is included.

15 10. A method for converting a command between one
complying with a first interface standard and one complying
with a second or third interface standard for communication
with a device through an interface thereof, the method
20 comprising:

connecting the interface of the device to an interface
converter having first and second command converters, which
convert commands from compliance with the first interface
standard to compliance with the second or third interface
25 standard, respectively;

checking whether the interface of the device connected
to the interface converter complies with the second
interface standard or the third interface standard; and

selecting the first command converter or the second
30 command converter in accordance with the result of said
checking.

11. The method according to claim 10, wherein said

checking includes:

sequentially issuing to the device a first command complying with the second interface standard and a second command complying with the third interface standard;

5 referring to status information of the device for at least one of the first and second commands; and

checking the type of the interface of the device in accordance with the result of said referring.

10 12. The method according to claim 10, further comprising:

determining whether to convert a command complying with the first interface standard to a command complying with the second or third interface standard; and

15 generating an error status signal when the command is not converted.

13. An interface converter for functionally connecting a first device having an interface complying with a first 20 interface standard and a second device having an interface complying with a second interface standard or a third interface standard, the interface converter comprising:

a first command converter for converting a command between one complying with the first interface standard and 25 one complying with the second interface standard;

a second command converter for converting a command between one complying with the first interface standard and one complying with the third interface standard; and

30 a switching controller for checking whether the interface of the second device complies with the second interface or the third interface and activating the first command converter or the second command converter in accordance with the checking result.

14. The interface converter according to claim 13,
further comprising:

5 a first data converter for converting a datum between
one complying with the first interface standard and one
complying with the second interface standard; and

10 a second data converter for converting a datum between
one complying with the first interface standard and one
complying with the third interface standard, and wherein the
switching controller activates the first data converter or
the second data converter in accordance with the checking
result.

15 15. The interface converter according to claim 14,
wherein the first and second data converters each include an
encoder for encoding converted data and a decoder for
decoding converted data.

20 16. A method for functionally connecting a first
device having an interface complying with a first interface
standard and a second device having an interface complying
with a second interface standard or a third interface
standard, the method comprising:

25 providing first and second command converters, which
convert a command between one complying with the first
interface standard and one complying with the second or
third interface standard, respectively;

30 checking whether the interface of the second device
complies with the second interface standard or the third
interface standard; and

activating the first command converter or the second
command converter in accordance with the result of said
checking.

17. The method according to claim 16, wherein said
checking includes:

5 sequentially issuing to the second device a first
identify device command complying with the second interface
standard and a second identify device command complying with
the third interface standard;

10 referring to status information of the second device
for at least one of the first and second identify device
commands; and

checking the type of the interface of the second device
in accordance with the result of said referring.